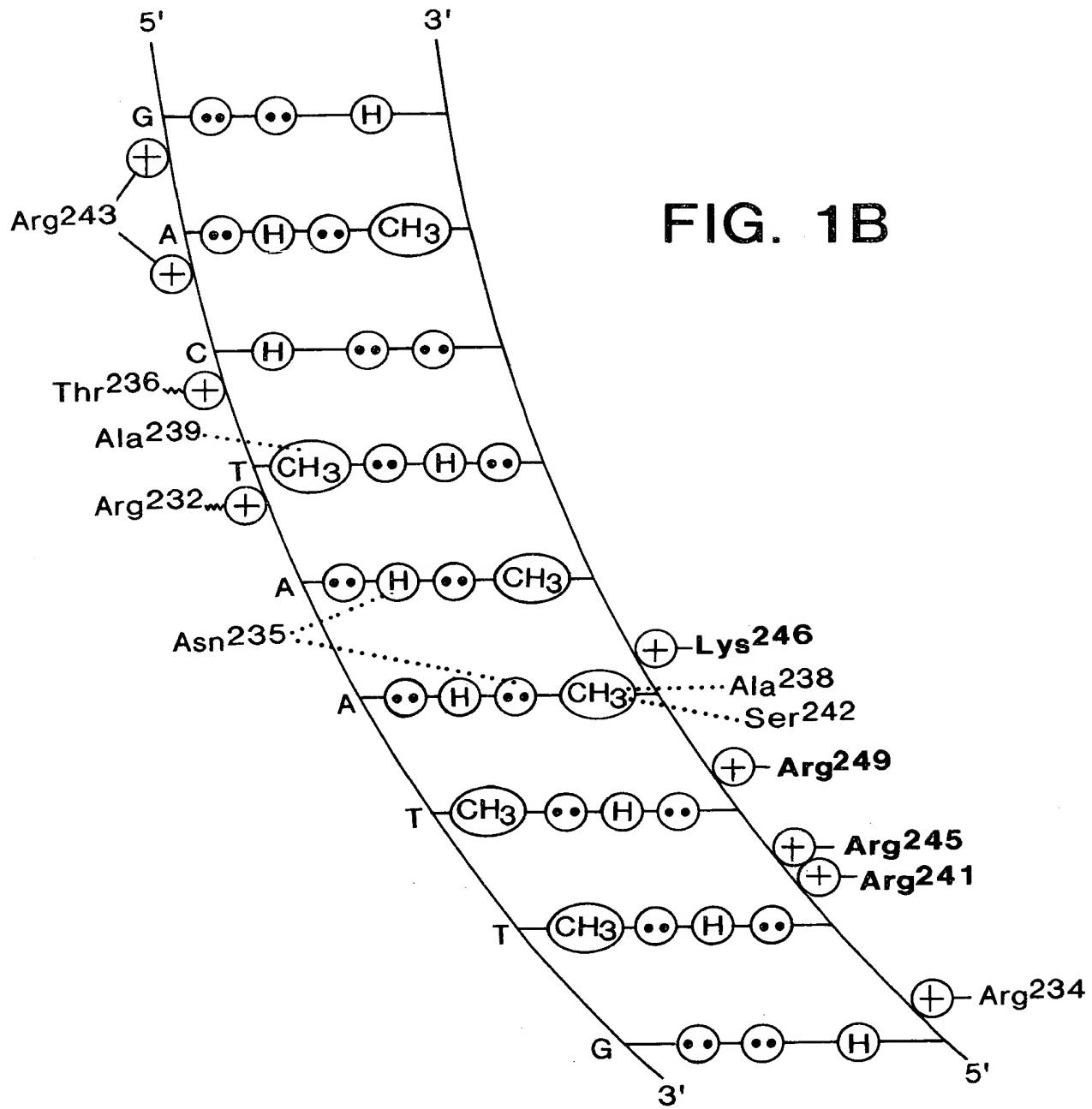
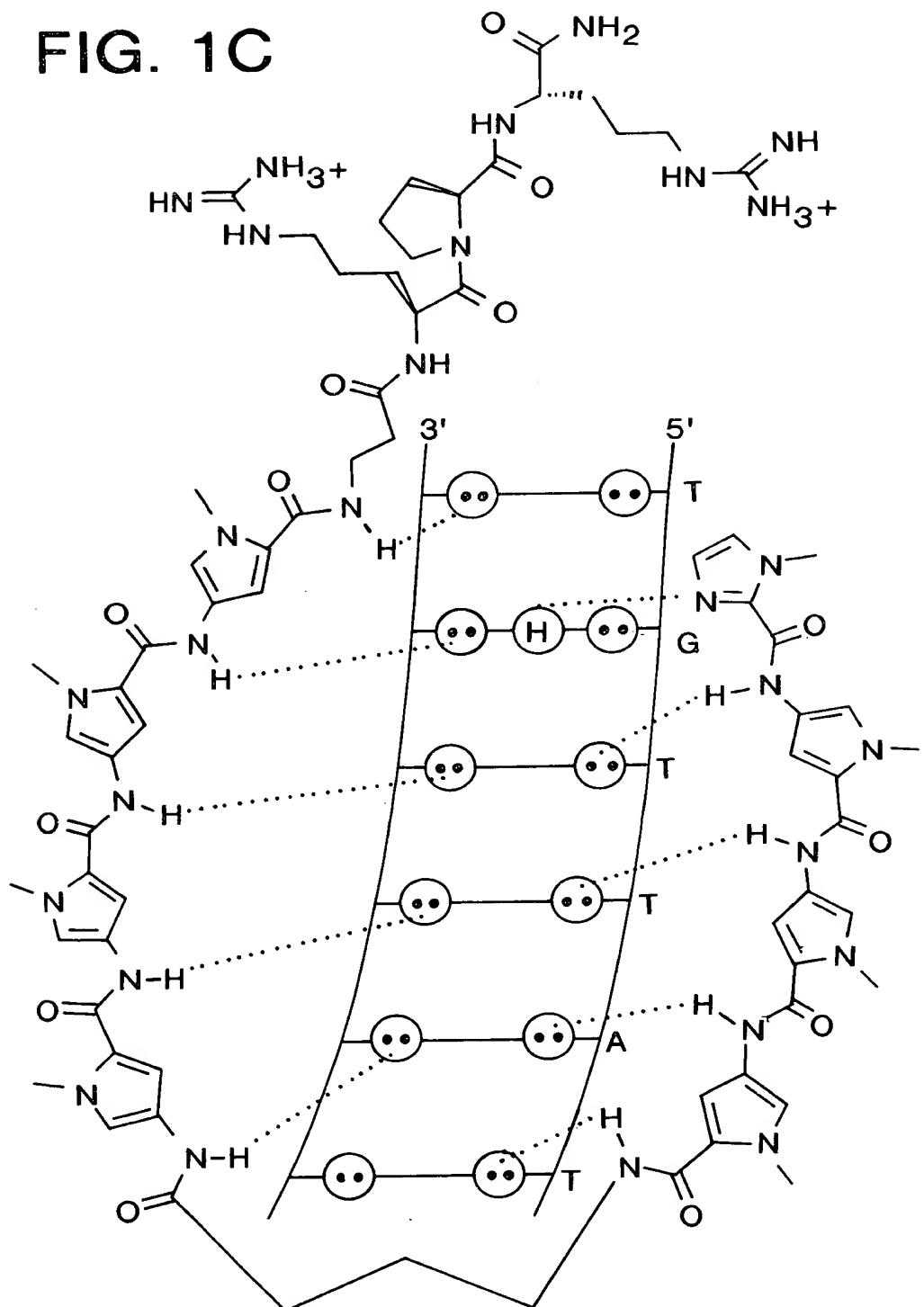


**FIG. 1A**

FIG. 1B

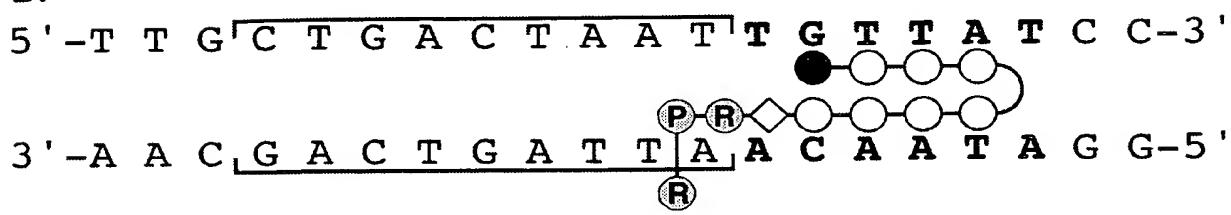


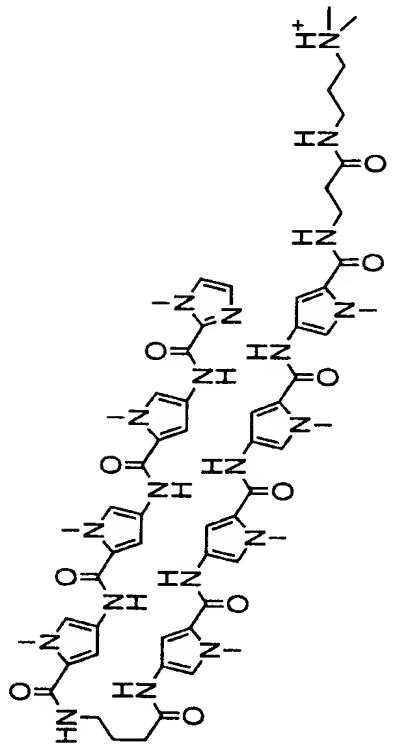
**FIG. 1C**



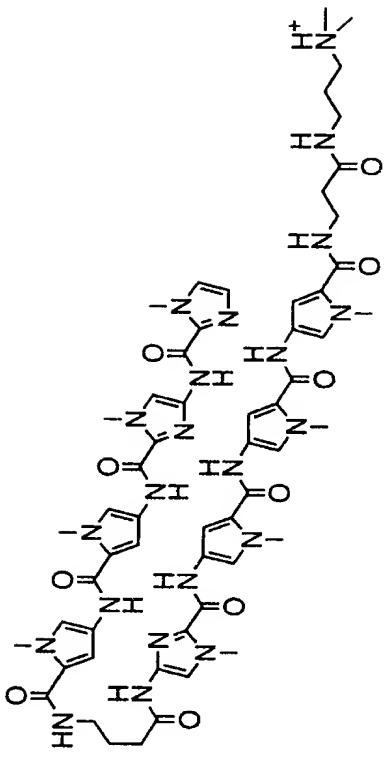
**FIG. 1D**

D.

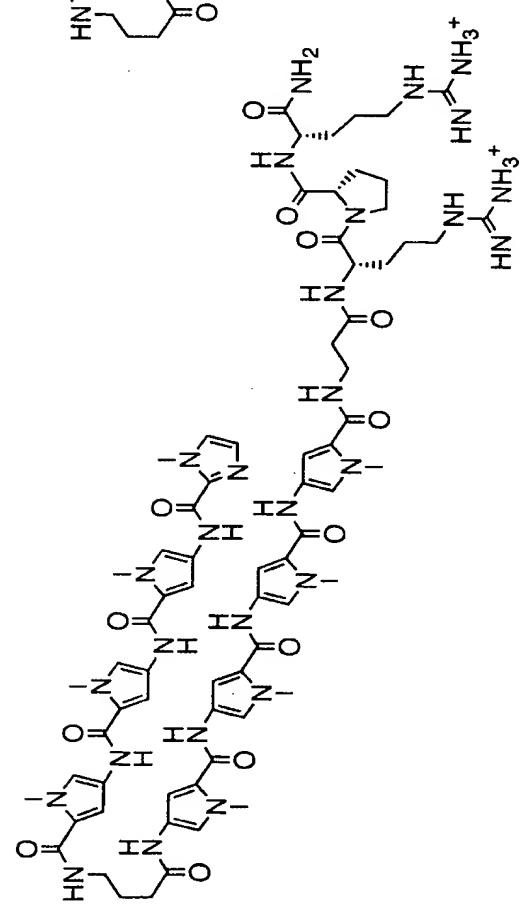




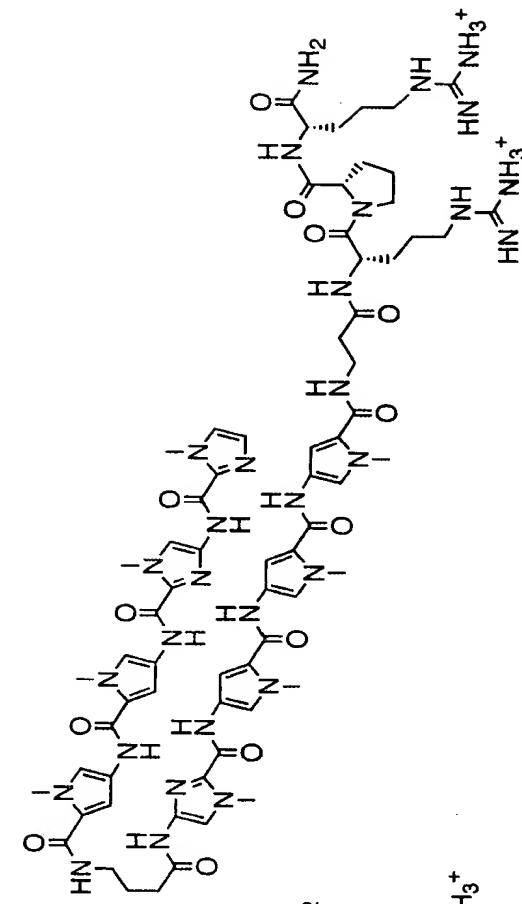
**FIG. 2A**  
(1) ImPyPyPy- $\gamma$ -PyPyPyPy- $\beta$ -Dp



**FIG. 2B**  
(2) ImImPyPy- $\gamma$ -ImPyPyPyPy- $\beta$ -Dp



**FIG. 2C**  
(3) ImPyPyPy- $\gamma$ -PyPyPyPy- $\beta$ -RPR



**FIG. 2D**  
(4) ImImPyPy- $\gamma$ -ImPyPyPyPy- $\beta$ -RPR

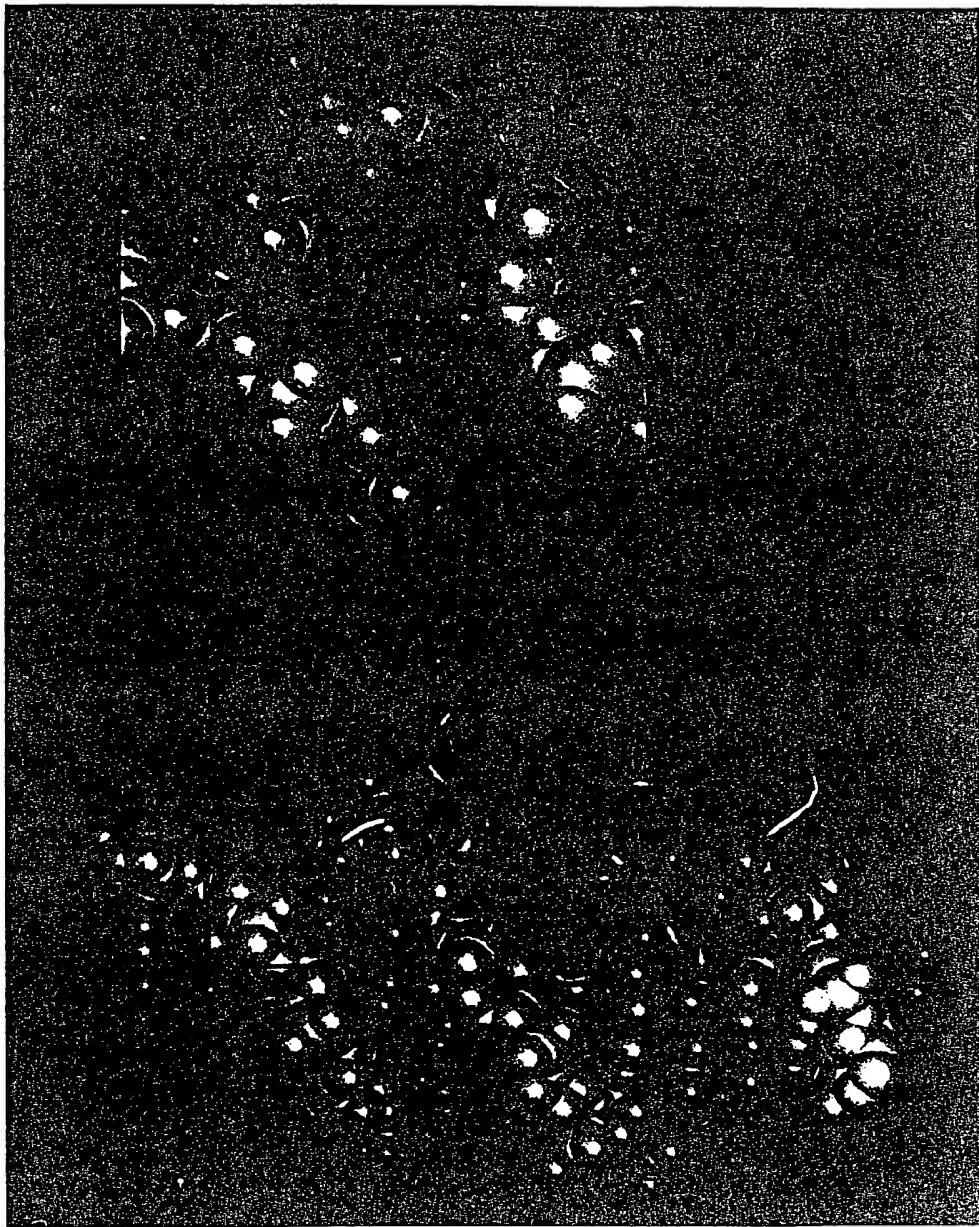
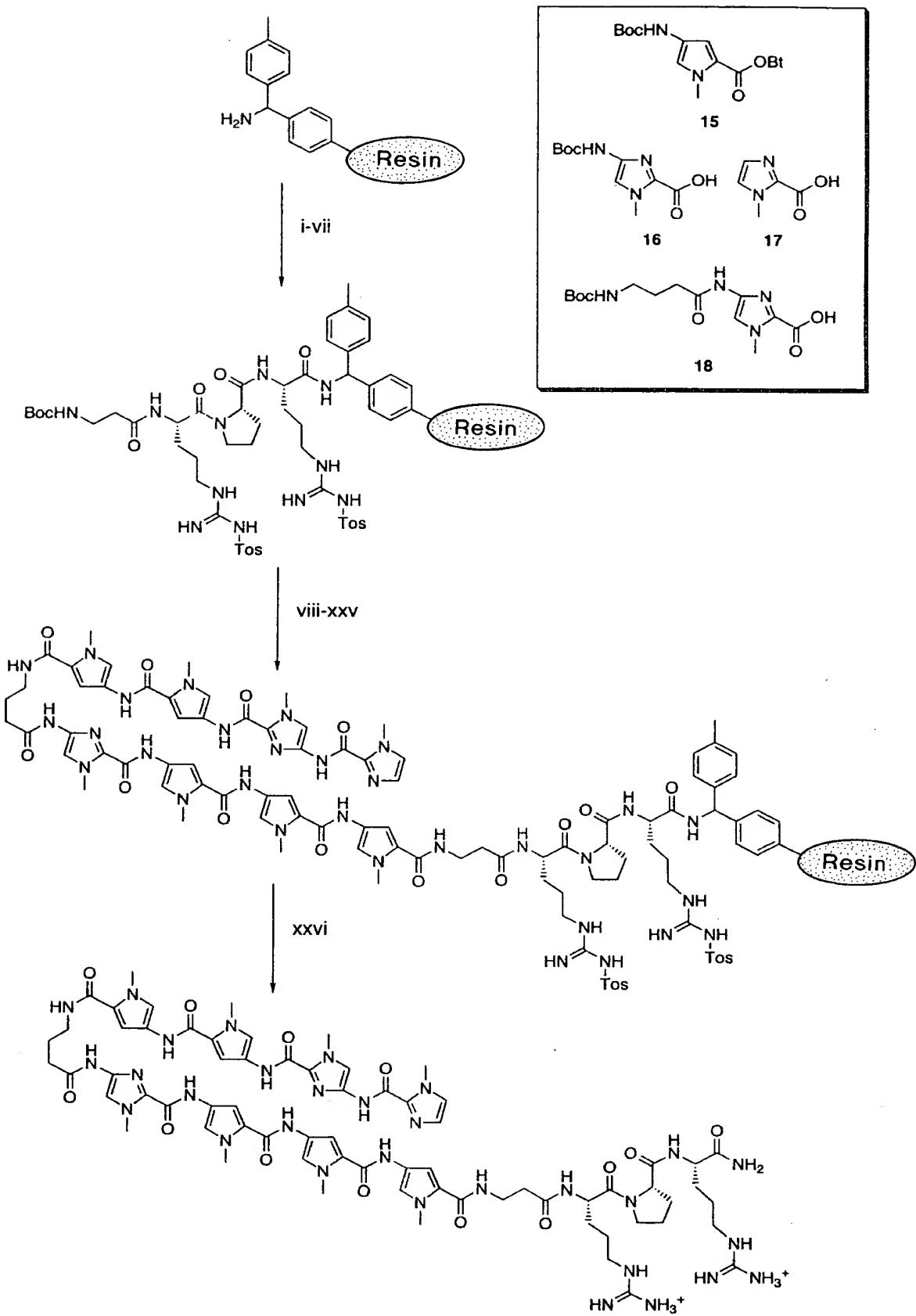
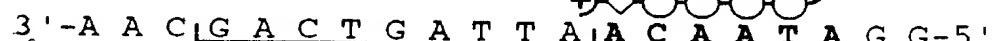
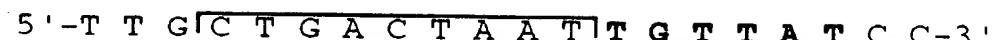


FIG. 3



**ImImPyPy- $\gamma$ -ImPyPyPy- $\beta$ -RPR (4)**  
**FIG. 4**



## Match

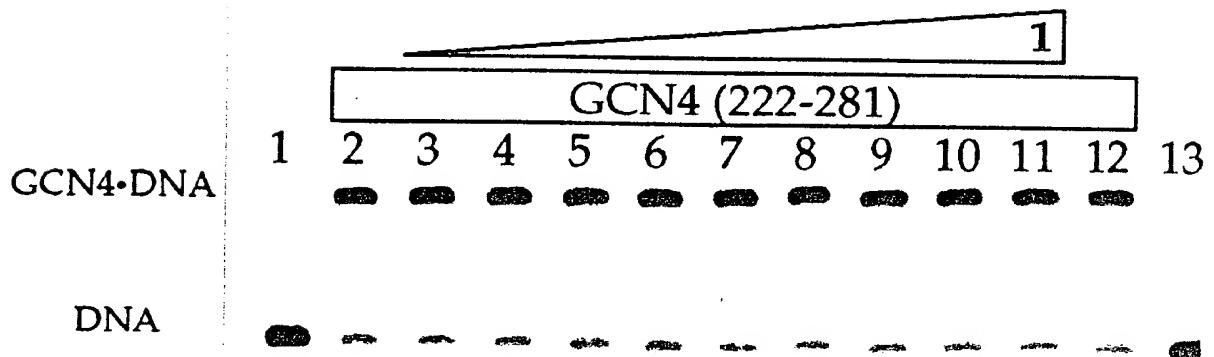


FIG. 5A



## Match



### GCN4•DNA

DNA

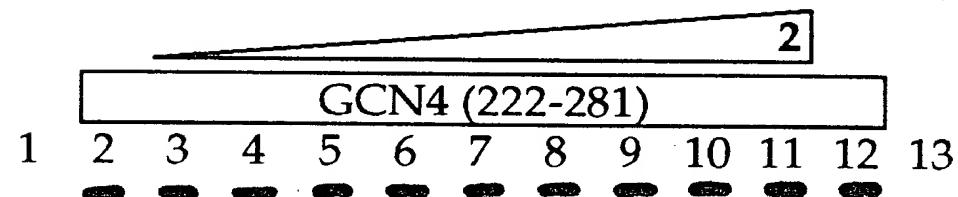


FIG. 5B

## ARE-1

## Match

5'-T T G C T G A C T A A T T T G T T A T C C-3'

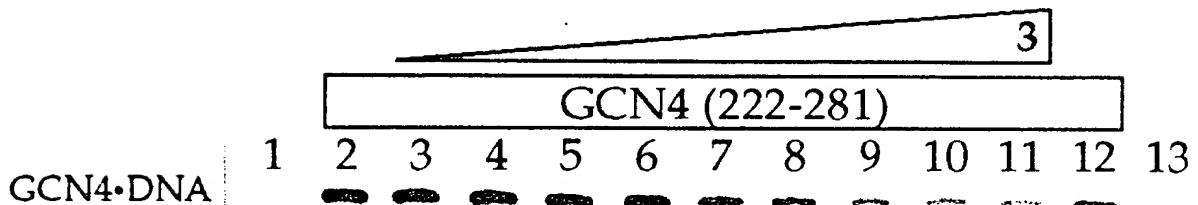
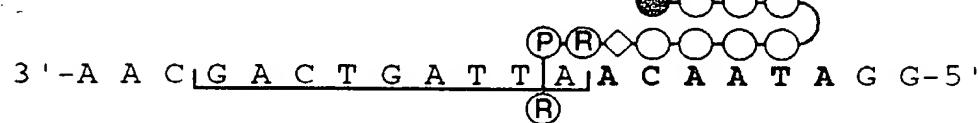


FIG. 5C

## ARE-2

## Mismatch

5'-T T G C T G A C T A A T T T G G T C T C C-3'

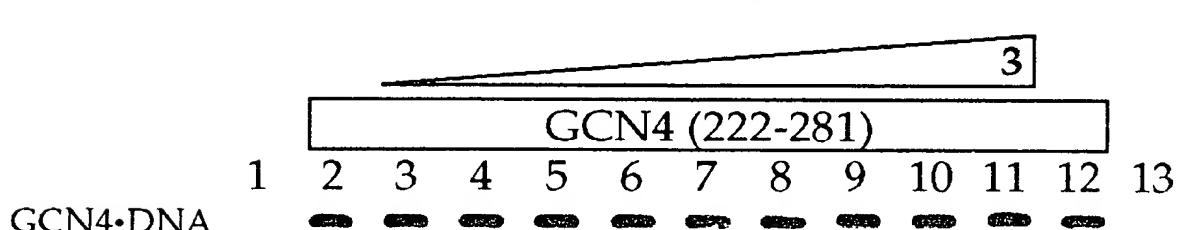
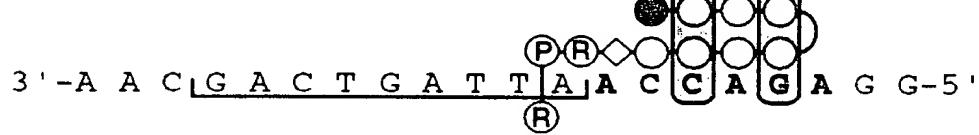


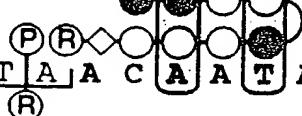
FIG. 5D

## ARE-1

## Mismatch

5'-T T G C T G A C T A A T T G T T A T C C-3'

3'-A A C G A C T G A T T A A C A A T A G G-5'



4

GCN4 (222-281)

GCN4·DNA 1 2 3 4 5 6 7 8 9 10 11 12 13

DNA

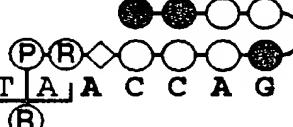
FIG. 5E

## ARE-2

## Match

5'-T T G C T G A C T A A T T G G T C T C C-3'

3'-A A C G A C T G A T T A A C C A G A G G-5'



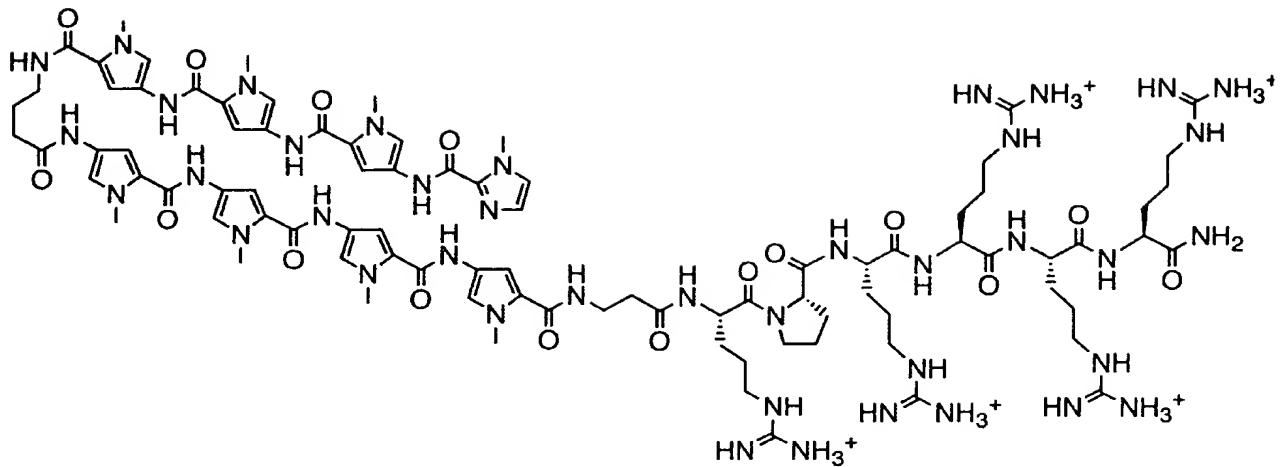
4

GCN4 (222-281)

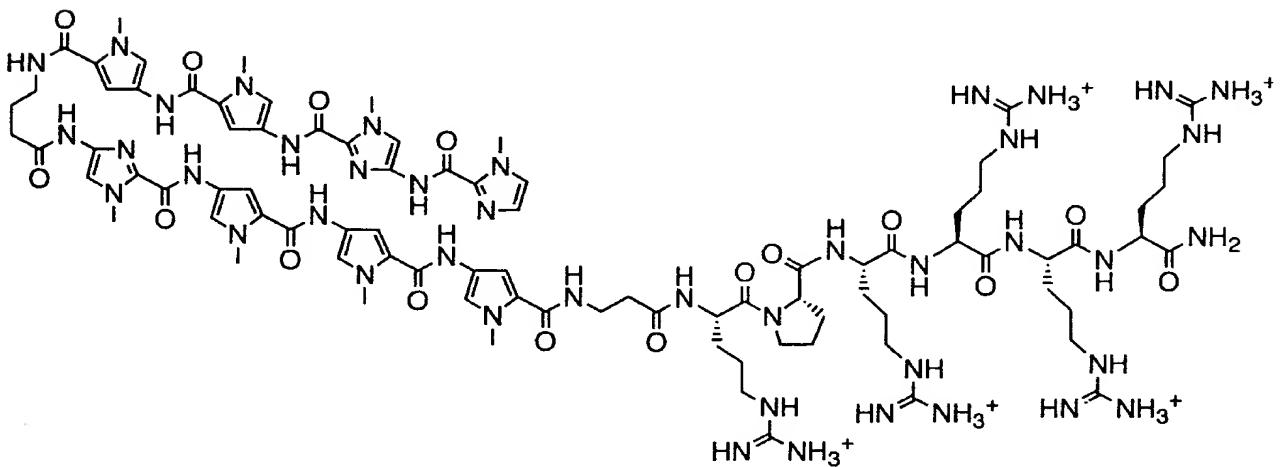
GCN4·DNA 1 2 3 4 5 6 7 8 9 10 11 12 13

DNA

FIG. 5F



## (5) ImPyPyPy-γ-PyPyPyPy-β-RPRRRR



## (6) ImImPyPy- $\gamma$ -ImPyPyPy- $\beta$ -RPRRRR

FIG. 6

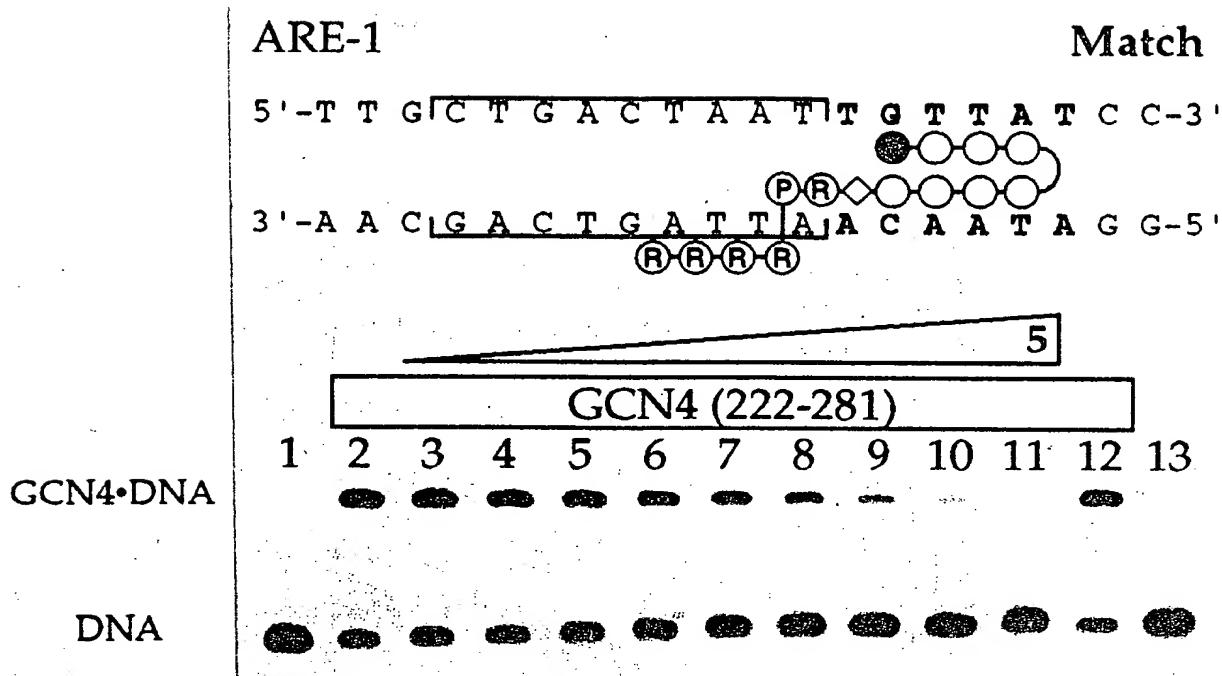


FIG. 7A

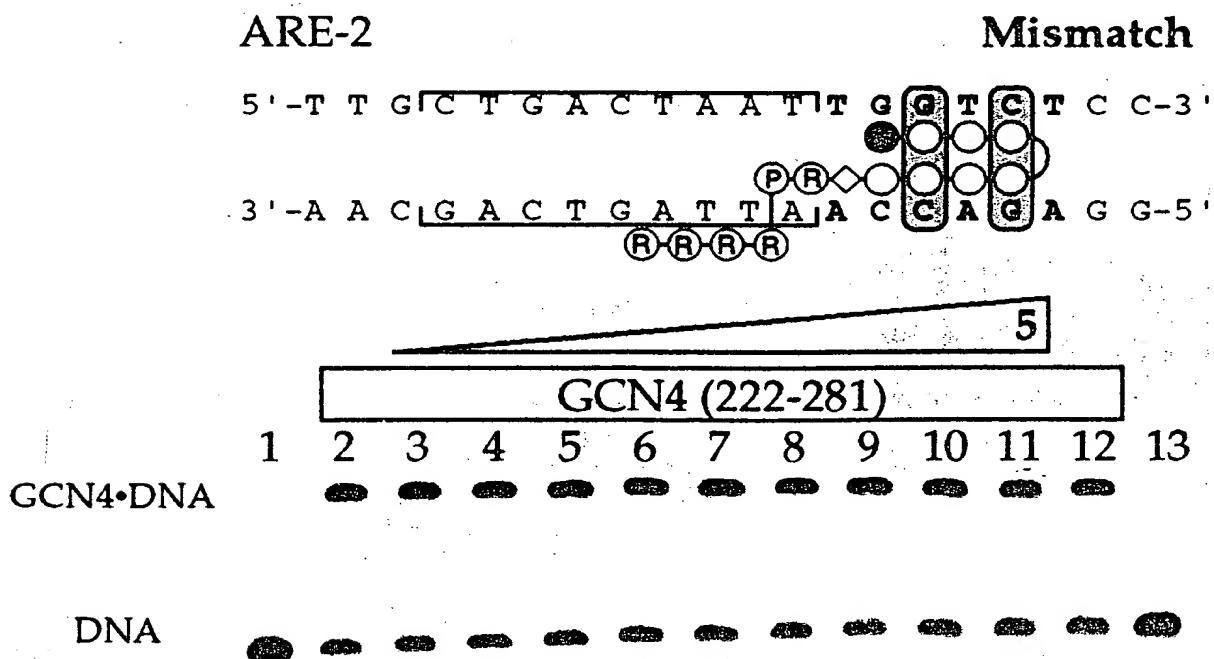


FIG. 7B

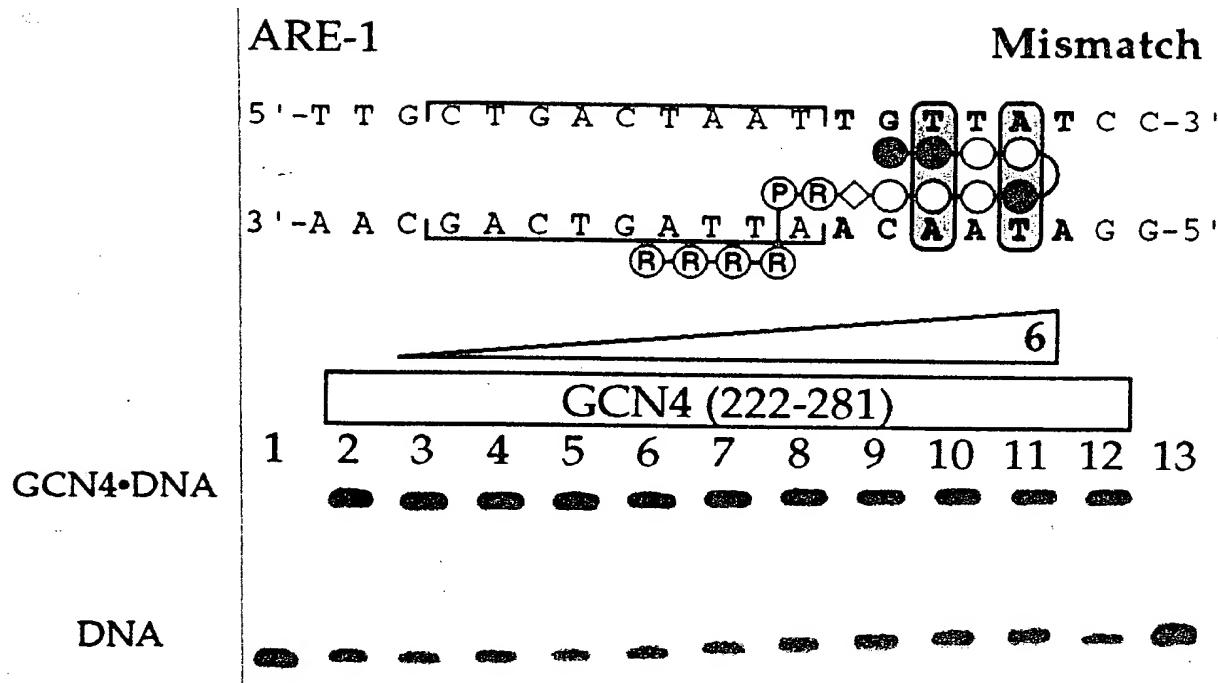


FIG. 7C

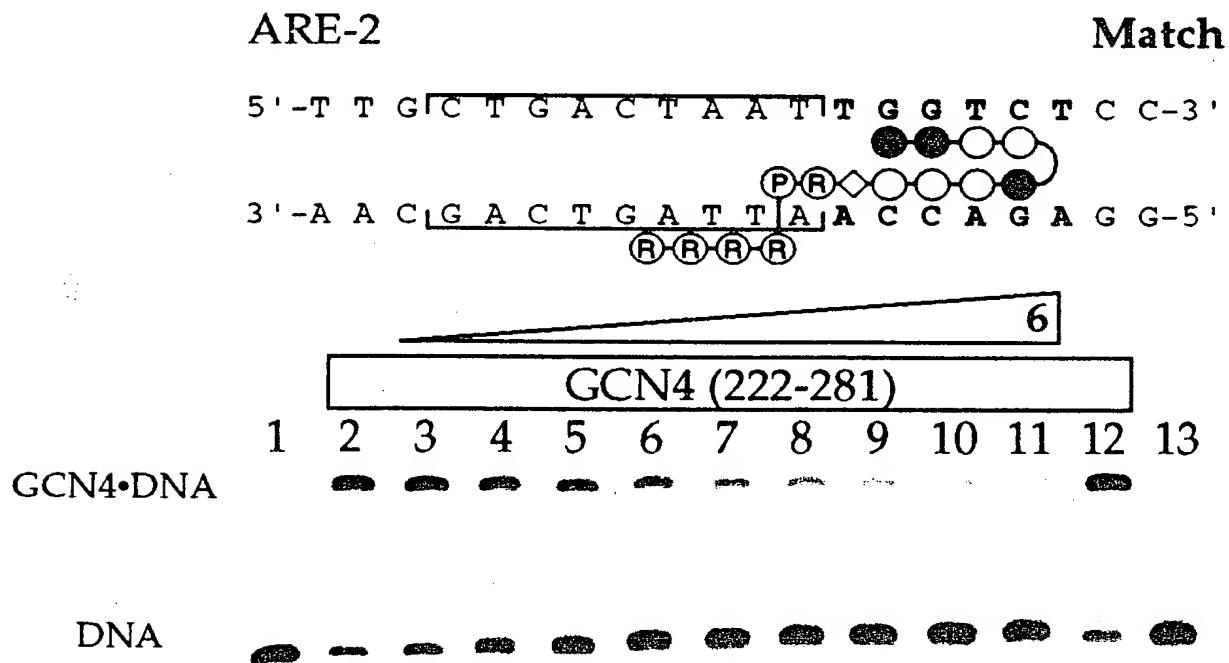
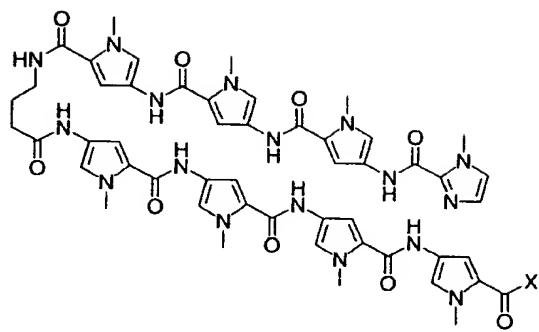


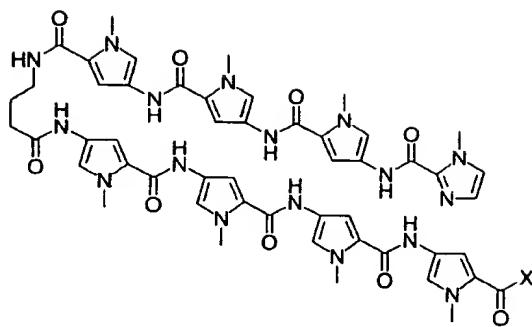
FIG. 7D



ImPyPyPy- $\gamma$ -PyPyPyPy-X

| Polyamide | X = | Inhibition      |
|-----------|-----|-----------------|
| 1         |     | $\beta$ -Dp -   |
| 3         |     | $\beta$ -RPR ++ |
| 7         |     | $\beta$ -R -    |
| 8         |     | $\beta$ -RP -   |
| 9         |     | $\beta$ -RGR +  |

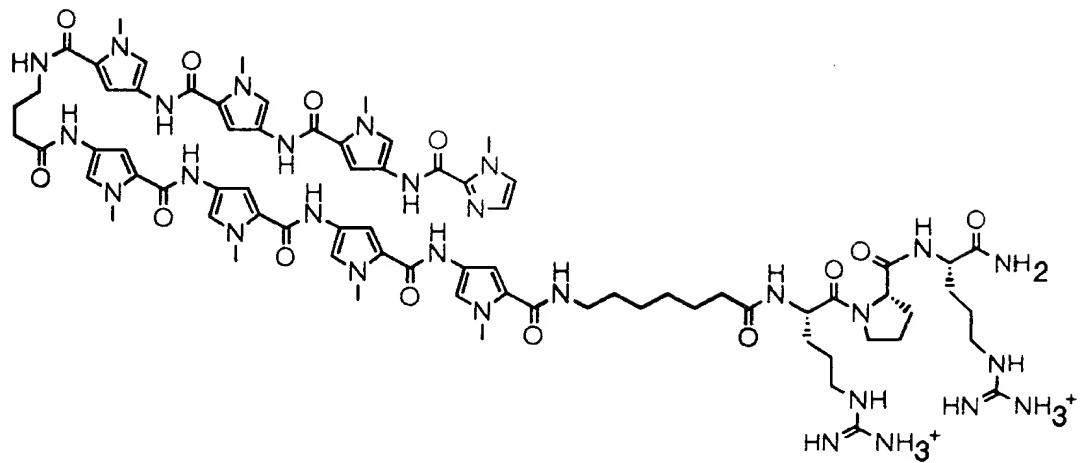
FIG. 8A



ImPyPyPy- $\gamma$ -PyPyPyPy-X

| Polyamide | X = | Inhibition                    |
|-----------|-----|-------------------------------|
| 10        |     | $\beta$ -R <sup>D</sup> PR -  |
| 11        |     | $\beta$ -APR -                |
| 12        |     | $\beta$ -KPR +                |
| 13        |     | $\beta$ -RPK ++               |
| 14        |     | $\beta$ -C <sub>7</sub> RPR - |

FIG. 8B



(14) ImPyPyPy- $\gamma$ -PyPyPyPy-C7-RPR

FIG. 9

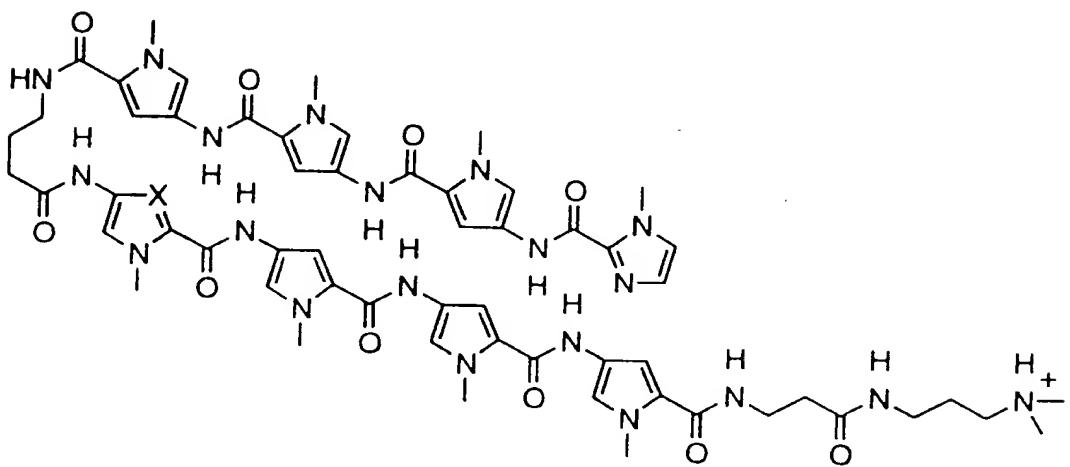
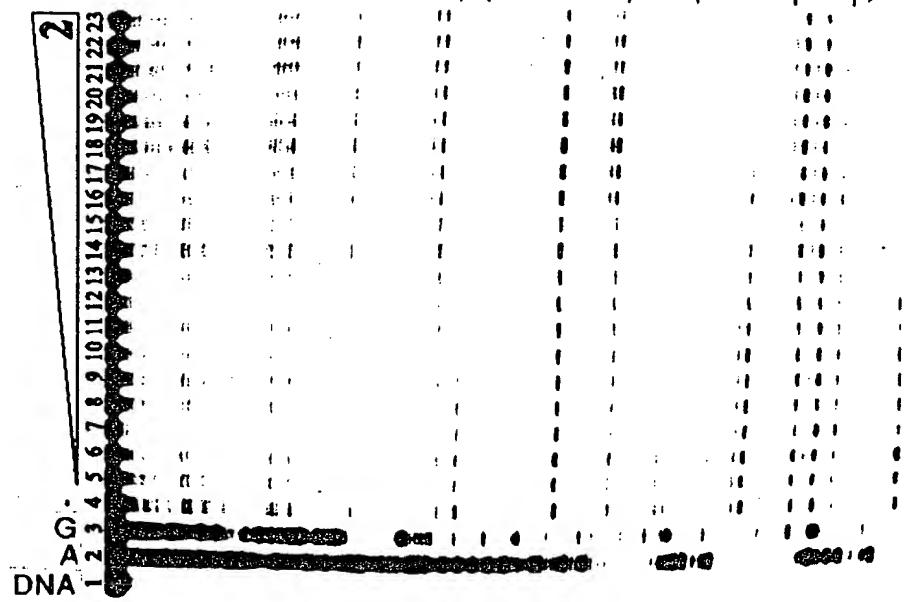
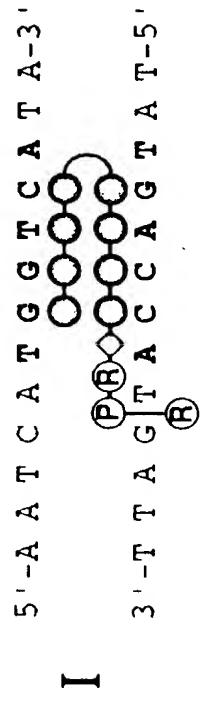
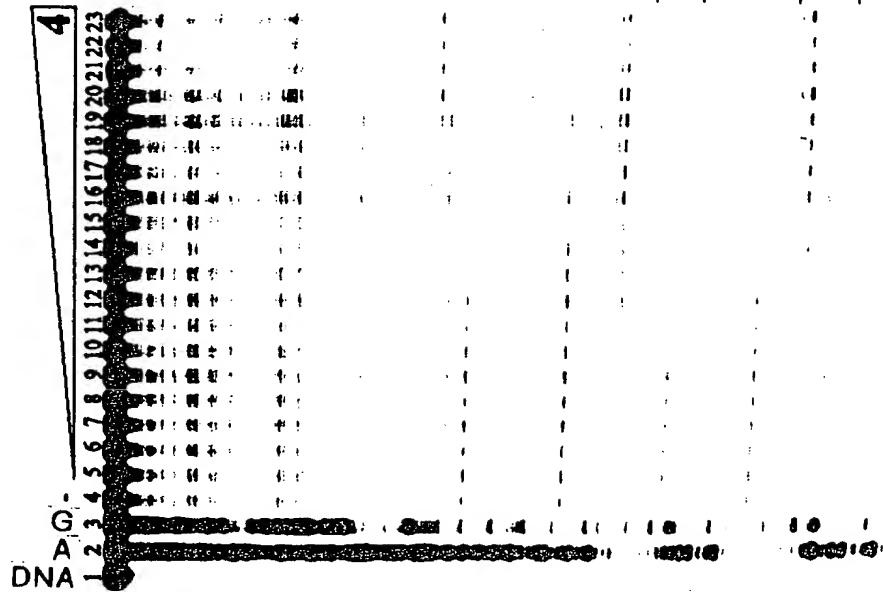


FIG. 13

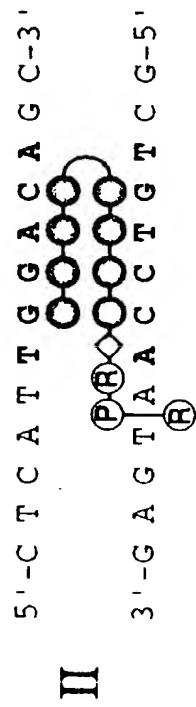


|            | ImImPyPy- $\gamma$ -ImPyPy- $\beta$ -Dp | $K_a$ (M <sup>-1</sup> ) |
|------------|---|--------------------------|
| <b>I</b>   | 5'-AATCATGGTACAT-3'                     | $1.3 \times 10^{10}$     |
| <b>II</b>  | 5'-CTCATTTGGA <del>C</del> AGC-3'       | $6.4 \times 10^9$        |
| <b>III</b> | 5'-CTCATTTGTA <del>C</del> AGC-3'       | $\leq 5 \times 10^7$     |

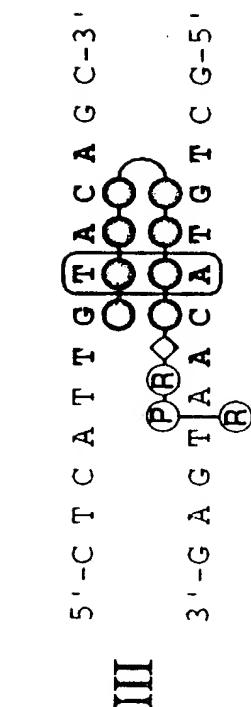
FIG. 10A



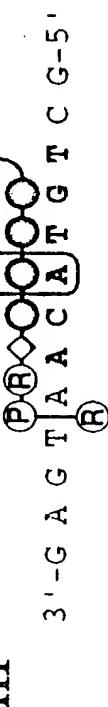
1



1



三



III



$$6.6 \times 10^9$$



**FIG. 10B**

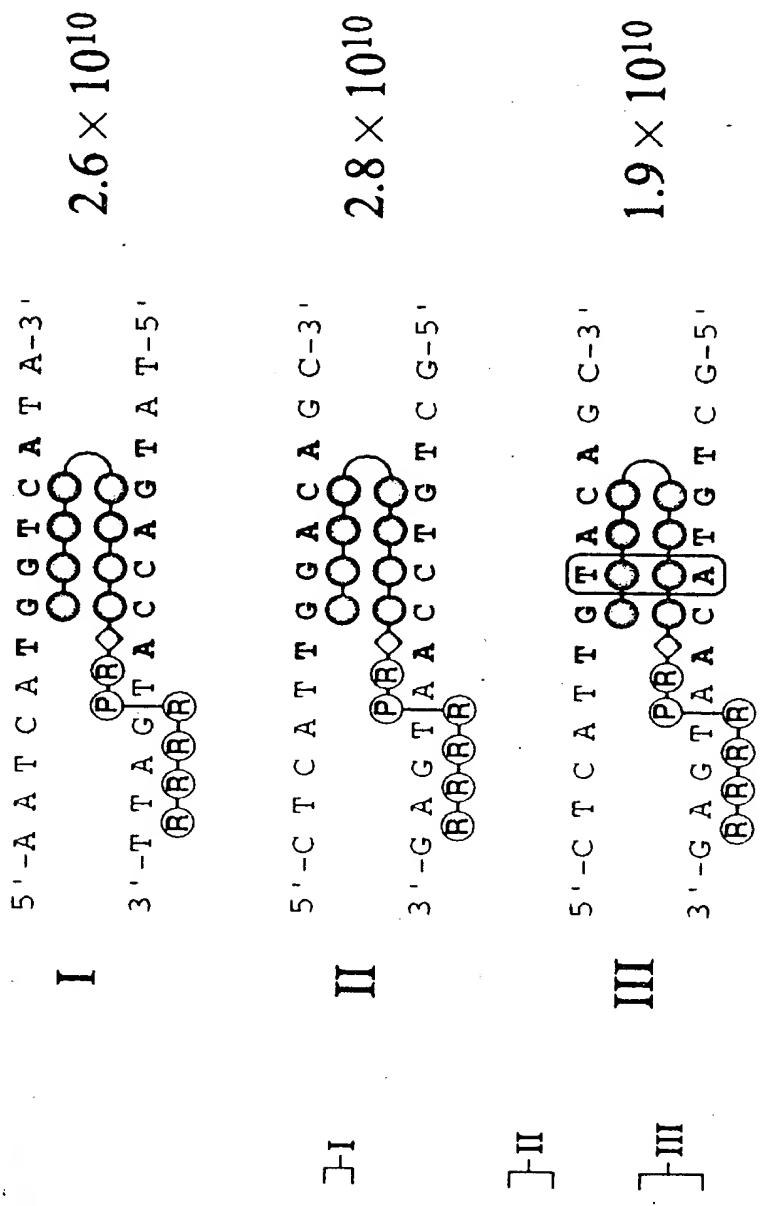
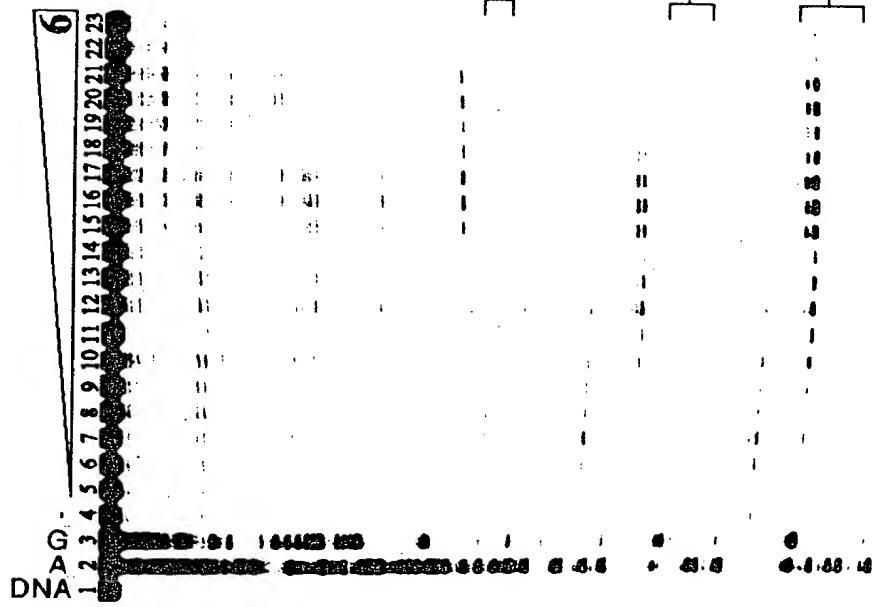


FIG. 10C

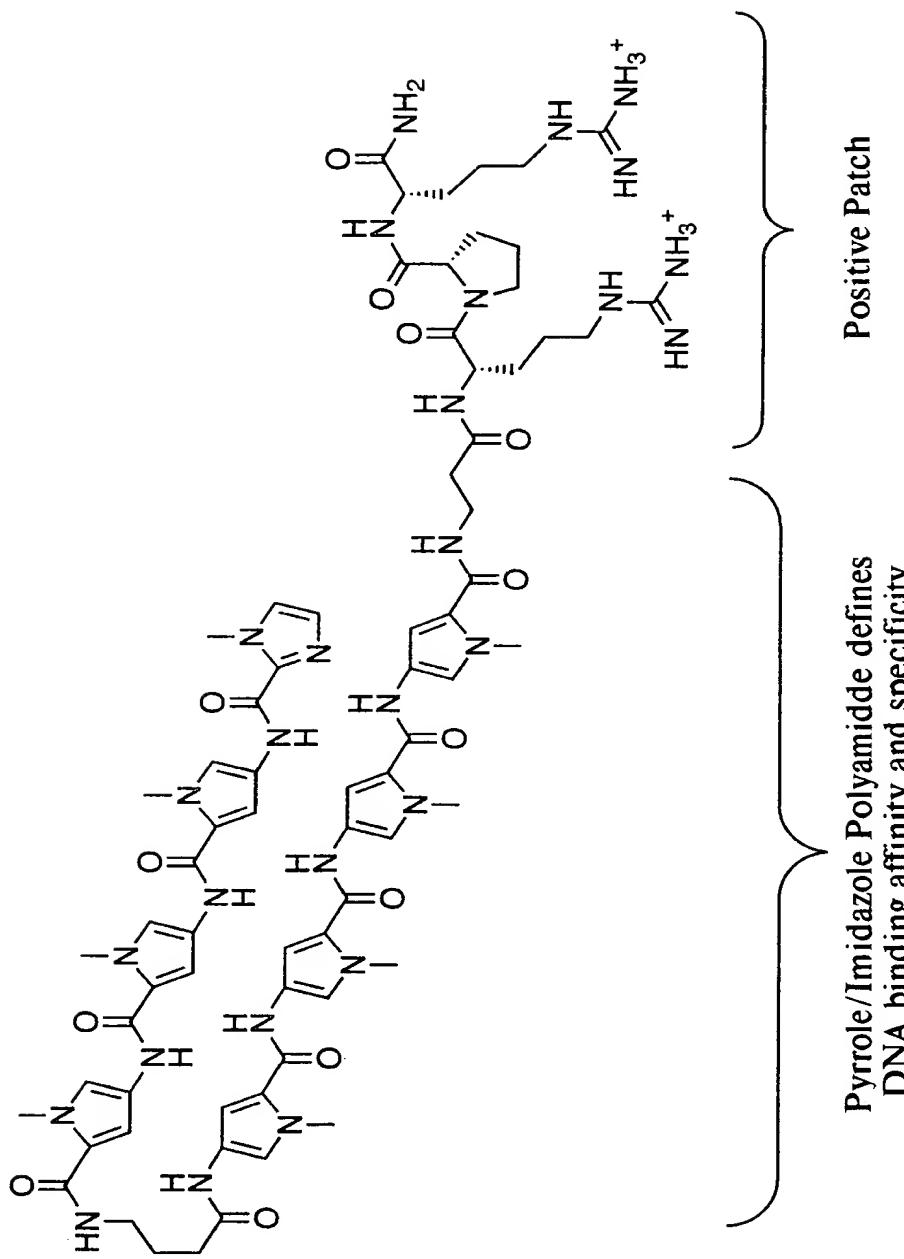
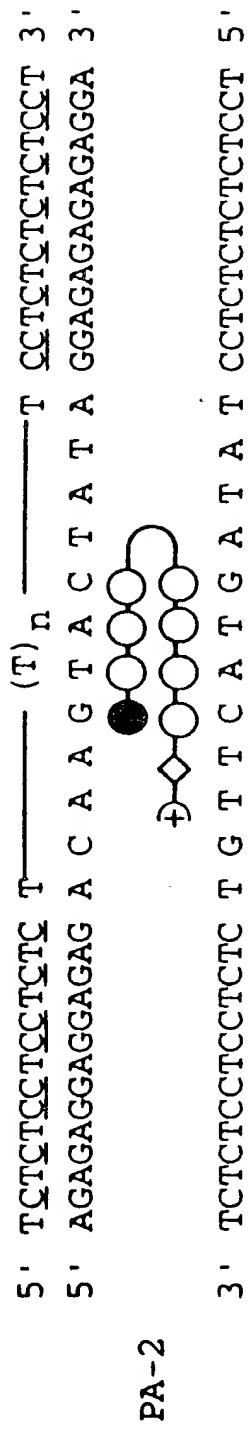
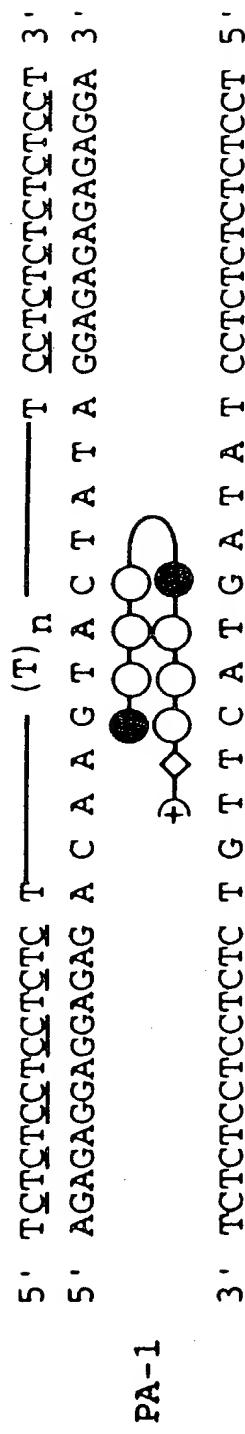


FIG. 11



$$n=2-6,9$$

FIG. 12

二  
上

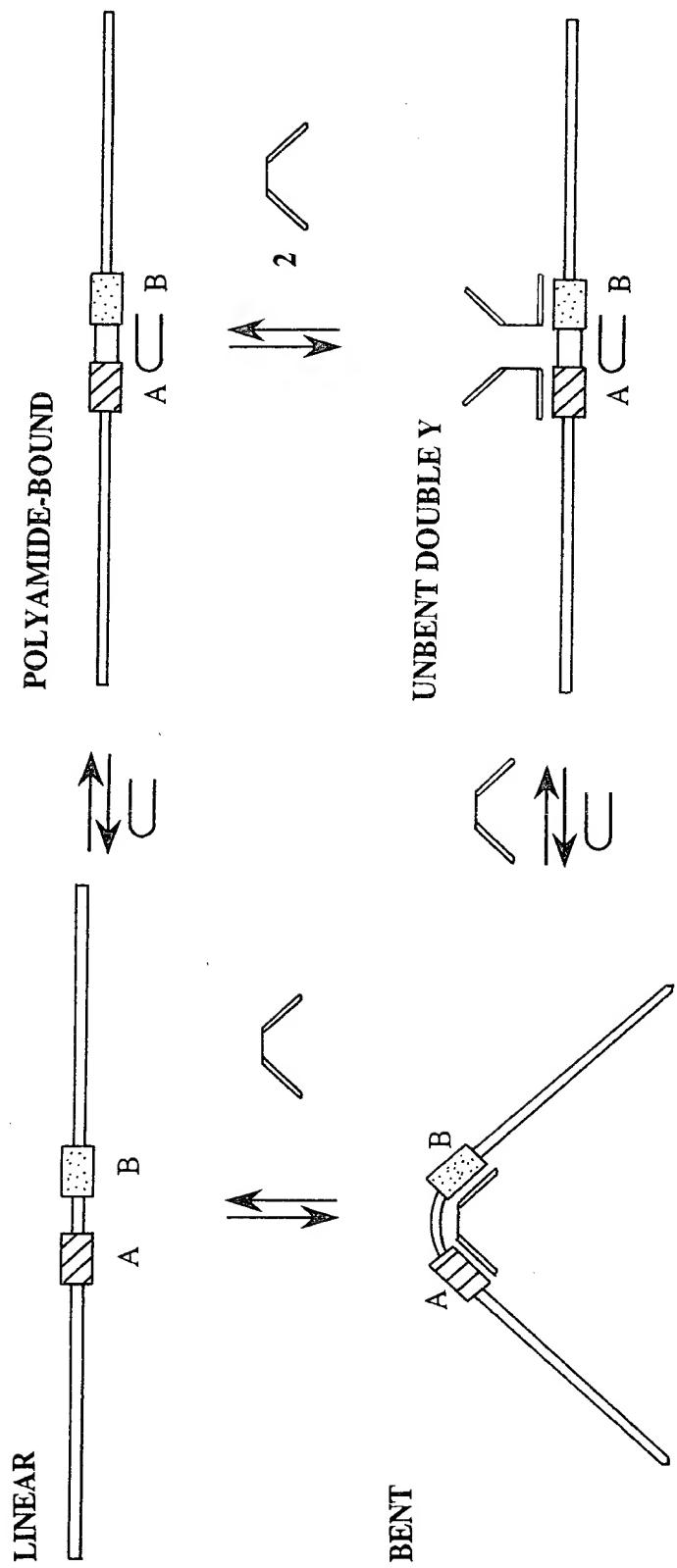
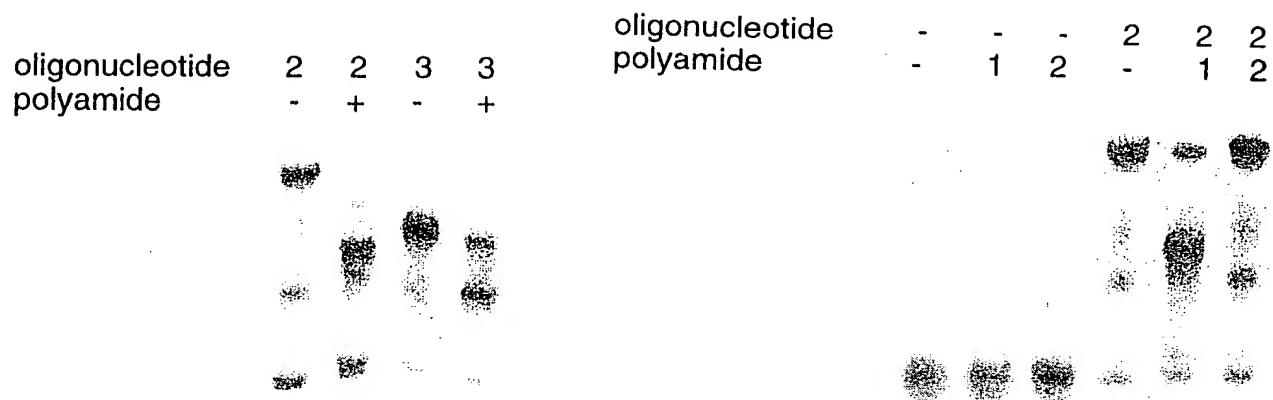
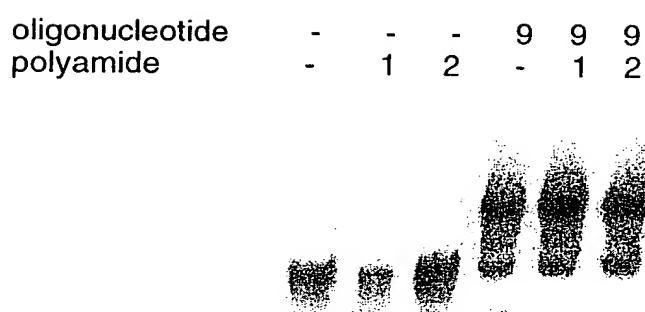


FIG. 14



**FIG. 15**

**FIG. 16A**



**FIG. 16B**

simultaneous addition  
 polyamide first  
 oligonucleotide first

**FIG. 17**